

# **Assistive Technology Act of 1998**

Title I: State Grant Program

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Annual Report to Congress:  
Fiscal Years 2001, 2002, and 2003



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February 2005

Office of Special Education and Rehabilitative Services  
National Institute on Disability and Rehabilitation Research

This combined 3-year annual report has been produced by staff of the National Institute on Disability and Rehabilitation Research (NIDRR).

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February 2005

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## **ACKNOWLEDGEMENTS**

The National Institute on Disability and Rehabilitation Research (NIDRR) wishes to acknowledge the Research Triangle Institute's (RTI) contribution to this report. The data provided to NIDRR for this report was collected by RTI, under grant number H224B03001. The RTI-developed Web-based data collection instrument was used to secure information summarized by RTI and submitted to NIDRR for further analysis and reporting.

## ACKNOWLEDGMENTS

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## **EXECUTIVE SUMMARY**

This report constitutes a combined 3-year annual report for the Assistive Technology (AT) State Grant Program, authorized under Title I of the AT Act of 1998 (Public Law 105-394). The AT Act requires that an annual report containing the following information on the AT State Grant program be submitted by the Department of Education to the President and to Congress:

- the demonstrated successes of the funded activities in improving interagency coordination relating to assistive technology, streamlining access to funding for assistive technology, and producing beneficial outcomes for users of assistive technology;
- the demonstration activities carried out through the funded activities to — (a) promote access to such funding in public programs that were in existence on the date of the initiation of the demonstration activities; and (b) establish additional options for obtaining such funding;
- the education and training activities carried out through the funded activities to educate and train targeted individuals about assistive technology, including increasing awareness of funding through public programs for assistive technology;
- the research activities carried out through the funded activities to improve understanding of the costs and benefits of access to assistive technology for individuals with disabilities who represent a variety of ages and types of disabilities;
- the program outreach activities to rural and inner-city areas that are carried out through the funded activities;
- the activities carried out through the funded activities that are targeted to reach underrepresented populations and rural populations; and
- the consumer involvement activities carried out through the funded activities.

### **Interagency Coordination**

In Fiscal Year 2003, 55 of 56 (98 percent) grantees conducted interagency coordination activities. Forty-nine of 51 (96 percent) grantees conducted interagency coordination activities in FY 2001, and 55 of 56 (98 percent) grantees conducted such activities in FY 2002. Nearly all grantees (96 percent or more) have reported conducting interagency coordination in at least one of the past 3 years. The number of agencies with which the AT grantees coordinated activities increased over these fiscal years, from 1,003 agencies in FY 2001, to 1,377 agencies in FY 2002, and 1,412 agencies in FY 2003. In FY 2001, grantees most frequently coordinated with Centers

for Independent Living. In FYs 2002 and 2003, they most frequently coordinated with the state vocational rehabilitation (VR) agency. AT grantees coordinated with agencies serving people with disabilities of all ages. Annually, a minimum of 43 grantees cited coordination with their states' K–12 school system. Over the 3-year period, interagency activities most commonly focused on training personnel to assist individuals with disabilities to use AT and activities aimed at increasing program capacities. Grantees conducted activities that led to improved consumer access to assistive technology funding. In FY 2003 forty-eight grantees concentrated their interagency activities on efforts to acquire financing for AT devices and services. During the same FY grantees reported improvements in AT financing resulting from 42 legislative and policy changes.

### **Demonstration Activities**

In FY 2003, 50 of 56 (89 percent) grantees reported AT demonstration activities. Forty-seven of 51 (92 percent) grantees reported demonstration activities in FY 2001 and 52 of 56 (93 percent) reported demonstration activities in FY 2002. Across the 3-year period, a majority of grantees (at least 89 percent) have conducted demonstrations of AT. In two out of the 3 years, AT demonstration sites served between 104,000 to 105,000 persons, of whom 48,000 to 50,000 were persons with disabilities. Other than newsletters, AT demonstrations were the second largest means that grantees used to provide information to all individuals and to individuals with disabilities across the 3-year period. In FY 2003, grantees served 104,891 individuals at demonstration sites; of these, 50,473 were individuals with disabilities. Between FYs 2001–2003, grantees served a total of 639,270 individuals at demonstration sites; of these, 146,841 (23 percent) were individuals with disabilities. Conferences, expos and fairs have consistently been the most common venues for AT demonstrations. The most frequent service offered at demonstration sites was AT equipment lending.

### **Education and Training**

In FY 2003, 54 of 56 (96 percent) grantees conducted technical assistance and training activities. Forty-nine of 51 (96 percent) grantees reported conducting such activities in FY 2001 and 55 of 56 (98 percent) grantees conducted such activities in FY 2002. Most grantees (at least 96 percent) have cited conduct of technical assistance and training activities in FYs 2001, 2002, and 2003. Over these 3 years, grantees conducted more than 43,000 technical assistance and training activities, with approximately 360,000 participants. More than two-thirds of grantees provided detailed information on the individuals they served through these activities.

Professionals consistently made up at least 40 percent of all participants in AT grantees' training activities. Individuals with disabilities, together with their families, accounted for 34 to 40 percent of participants. The most frequent topics of grantee training sessions were device-specific training, AT evaluation and assessment, and obtaining funding for AT.

## **Research**

Although the AT grantees have not had any significant role in research on the availability of assistive technology devices and assistive technology services, the National Institute on Disability and Rehabilitation Research (NIDRR) has elected to fund additional studies under Title II of the Rehabilitation Act to collect this information. For example, the California Foundation for Independent Living Centers was awarded a grant to collect research on access to and use of assistive technology. Duke University received funding to examine issues within the field of AT outcomes measurement. In addition, the University of Wisconsin at Milwaukee is conducting grant activities that will ultimately lead to enhanced understanding about the relationships of AT outcomes factors that produce a better understanding of AT use and abandonment. A full description of these and other assistive technology research grants can be found at <http://www.ncddr.org>. The results of these and other research grants and related grantee publications are available from at <http://naricdev.heitechservices.com/>.

## **Outreach Activities to Rural and Inner-City Areas Targeted to Reach Underrepresented Populations and Rural Populations**

AT grantees support statewide and community-based organizations that provide AT devices and services or that assist persons with disabilities in using AT devices and services, "including a focus on organizations assisting individuals from underrepresented and rural populations." In FY 2003, 44 of 56 (79 percent) of grantees conducted outreach activities. This percentage represents a decrease in outreach activities. Of all the required activities, outreach efforts fluctuated the most from FY 2001 to 2003, with 90 percent of grantees (46 of 51) conducting these activities in FY 2001, rising to 100 percent (56 grantees) in FY 2002, and dropping to 79 percent (44 of 56 grantees) in FY 2003. The decline in outreach activities in FY 2003 cuts across all underrepresented populations.

The largest relative decrease in outreach emphasis over the 3-year period has been outreach to minorities. In FY 2001, forty-one of 51 (80 percent) conducted outreach to minorities. Outreach activities to minorities decreased to 41 of 56 (73 percent) in FY 2002 and to 32 of 56 (57 percent) in FY 2003. Additionally, individuals with low-incidence disabilities were not a common target of outreach efforts in FY 2001. By FY 2003, however, they were the group most

likely to be targeted for outreach. Each year, persons from rural areas were among the two groups most likely to be targeted by grantee outreach efforts. Persons with limited English proficiency were least likely to be the focus of grantee outreach efforts throughout the 3-year period (FYs 2001–2003).

In FY 2003, a total of 854,179 individuals received information on assistive technology from the AT State grantees from activities in public awareness, demonstrations and TA/training. Over the last three years, a total of 2.6 million individuals received AT information from the AT State grantees.

### **Consumer Involvement Activities Carried Out Through The Funded Activities**

Over the past three years the number of individuals with disabilities who participated in sponsored technical assistance and training events has continued to increase, while the number of family members participating in such events has decreased. In FY 2003 participation counts reached 27,365 individuals with disabilities, while the number of family members for FY 2003 was 10,798.

In FY 2003, 289,737 consumers and family members received information from the selected sources, including newsletters, demonstrations, technical assistance/training activities, presentations, and public forums. Overall, newsletters reached the largest number of consumers and family members, accounting for almost half of the over 700,000 consumer and family member recipients during the 3-year period.

## INTRODUCTION

The purpose of this report is to comply with the legislative mandate of the Assistive Technology (AT) Act of 1998 (Public Law 105-394) requiring the Secretary of Education to report annually on the activities funded under this Act (Section 103(c)).

Section 103(c) of the AT Act of 1998 requires the following information on the AT State Grant program be submitted to the president and to Congress:

- the demonstrated successes of the funded activities in improving interagency coordination relating to assistive technology, streamlining access to funding for assistive technology, and producing beneficial outcomes for users of assistive technology;
- the demonstration activities carried out through the funded activities to — (a) promote access to such funding in public programs that were in existence on the date of the initiation of the demonstration activities; and (b) establish additional options for obtaining such funding;
- the education and training activities carried out through the funded activities to educate and train targeted individuals about assistive technology, including increasing awareness of funding through public programs for assistive technology;
- the research activities carried out through the funded activities to improve understanding of the costs and benefits of access to assistive technology for individuals with disabilities who represent a variety of ages and types of disabilities;
- the program outreach activities to rural and inner-city areas that are carried out through the funded activities;
- the activities carried out through the funded activities that are targeted to reach underrepresented populations and rural populations; and
- the consumer involvement activities carried out through the funded activities.

In addition, the law requires the Department of Education to report on the availability of assistive technology devices and assistive technology services, as soon as practicable. While the AT grantees have not had any significant role in research addressing the availability of assistive technology devices and services, NIDRR has funded other grant projects focusing on AT research. As a result, the ongoing work of these AT research grants, as well as publications and reports resulting from their activities, are available at <http://naricdev.heitechservices.com/>. A more detailed discussion of some of the research activities of these projects will be provided in this report.

## Data Sources

All data reported in this report are from individual state AT grantee annual progress reports covering activities in fiscal years (FYs) 2001–2003. Use of the Web-based reporting system was not mandatory during the first year of its availability; hence, only 51 grantees provided reports on FY 2001 activities through that system.<sup>1</sup> In FYs 2002 and 2003, all 56 grantees completed their annual reports via the Internet. This report presents data from FYs 2001–2003 and includes a limited comparative analysis for data reported for all three years.

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<sup>1</sup> The five remaining grantees submitted paper copies of their reports to NIDRR. Data from these grantees (Ala., Ga., Ky., Penn., and American Samoa) are not included in this report.

## **OVERVIEW OF DATA QUALITY AND LIMITATIONS**

### **Data Quality**

Several mechanisms are in place to improve the consistency and quality of the data reported by grantees. Grantees use a uniform reporting instrument, consisting primarily of closed-ended questions, to document their activities. The Web-based system has internal checks to catch some of the mathematical miscalculations. An online instruction manual for grantee use presents numerous examples of the types of information that should be included in narrative responses. Each section of the reporting form also contains links to important definitions and instructions so that grantees can quickly obtain pertinent information without having to look through the entire instruction manual. Research Triangle Institute (RTI) staff made presentations on data collection and reporting at the annual state AT directors' conference sponsored by the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Technical Assistance (TA) Project. For example, during a presentation at the Summer 2001 conference, grantees received a copy of the reporting form and training on each item on the form. In addition to the online instruction manual, RTI staff provides ongoing technical assistance to grantees via e-mail or telephone.

NIDRR and RTI developed data cleaning procedures for the analysis of the state AT grantee data. The data cleaning procedures were designed to improve the quality of data. RTI reviews each state report and compiles a report for NIDRR addressing data inconsistencies and miscalculations. Grantees are asked to clarify information or address inconsistencies, miscalculations or other problems with the data, as appropriate. These issues are corrected prior to submitting data to NIDRR.

### **Limitations**

Since the initial development of the reporting form in FY 2000, the focus of program performance and evaluation has changed to emphasize outcomes versus outputs. Hence, the current reporting form provides few opportunities for grantees to report outcomes. The data collection instrument contains six items requiring narrative responses that include some outcome data.

All grantees did not submit data on their program activities conducted in FY 2001 in the Web-based data collection system. Fifty-one of the 56 (91 percent) grantees submitted data on their project activities conducted in FY 2001 using the Web-based data collection system while five grantees chose to report on paper. All grantees submitted data in the Web-based data collection system in FYs 2002 and 2003. This report only includes data reported in the Web-based data

collection system. Therefore, in general, the percentages of grantees instead of the number of grantees conducting activities and reporting outcomes are used to compare data across years.

## FINDINGS

This report focuses on demonstrated program outcomes for required reporting activities. The AT Act of 1998 requires that an annual report containing the following information on the AT State Grant program be submitted to the president and to Congress:

***Demonstrated Successes of the Funded Activities in Improving Interagency Coordination Relating to Assistive Technology, Streamlining Access to Funding for Assistive Technology, and Producing Beneficial Outcomes for Users of Assistive Technology***

Fifty-five of 56 (98 percent) grantees conducted interagency coordination activities in FY 2003. Forty-nine of 51 (96 percent) grantees conducted this activity in FY 2001 and 55 of 56 (98 percent) grantees conducted interagency coordination activities in FY 2002. Therefore, nearly all grantees conducted interagency coordination activities during the last 3 years. The total number of agencies with which the AT grantees coordinated activities increased over the 3 fiscal years, from 1,003 agencies in FY 2001 to 1,377 agencies in FY 2002, and 1,412 agencies in FY 2003.

In FYs 2001–2003, the six types of organizations with which AT grantees most commonly coordinated their activities are shown in Exhibit 1. In FY 2001, grantees most frequently coordinated with independent living centers, followed closely by postsecondary institutions, VR agencies, and disability-related nonprofits. In FYs 2002 and 2003, VR agencies led the way, followed by coordination efforts with independent living centers and postsecondary institutions. Grantees also coordinated with a wide variety of disability-related nonprofit organizations. For example, grantees often worked with agencies such as Easter Seals to maintain AT demonstration centers and, in some cases, equipment loan closets.

**Exhibit 1. Organizations Most Frequently Involved in Interagency Activities<sup>a</sup>**

Type of Organization	Number of Grantees		
	FY 2001 (N = 49)	FY 2002 (N = 55)	FY 2003 (N = 55)
Vocational rehabilitation	44	53	53
Centers for Independent Living	46	50	50
Postsecondary education (colleges, training programs)	45	50	51
Disability-related nonprofit organizations	44	50	50
Schools (K–12)	43	51	47
Senior services/aging	42	48	50

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

AT State program grantees coordinated with agencies serving people with disabilities of all ages. A sizable majority of AT grantees, at least 43 in each year, reported coordination with their states' K-12 school system. Grantees provide critical information to school districts and individual special education teachers on AT that might be appropriate to ensure compliance with the federal Individuals with Disabilities Education Act (IDEA) requirements. Grantees also reported coordinating activities with their states' senior services agencies.

Over the 3-year period, interagency activities most commonly focused on training personnel to assist individuals with disabilities to use AT and activities aimed at increasing program capacities (Exhibit 2). Conducting outreach to underrepresented populations and disseminating information about AT have increased in importance to become the most common foci of interagency activities in FY 2003, whereas in FYs 2001 and 2002 those activities were less frequently cited by grantees.

**Exhibit 2. Focus of Interagency Activities<sup>a</sup>**

Focus	Number of Grantees		
	FY 2001 (N = 49)	FY 2002 (N = 55)	FY 2003 (N = 55)
Train personnel to assist individuals with disabilities to use AT	45	53	52
Increase program capacity to provide technology-related assistance	46	52	51
Conduct outreach to underrepresented populations and rural populations	44	49	54
Provide/disseminate information about the availability and potential of AT	39	54	54
Improve coordination between state human service programs and private entities	45	50	47
Obtain financing to pay for AT devices and services	43	51	48
Change systems to ensure timely acquisition and delivery of AT devices and services	42	50	48
Improve accessibility of computer IT for persons with disabilities <sup>b</sup>	—	49	46

<sup>a</sup> Data source: AT State grant program annual progress reports for FY 2001–2003.

<sup>b</sup> Response category was added to the reporting form in FY 2002, based on analysis of “other specify” answers in FY 2001.

Grantees were also involved in activities that improved consumer access to assistive technology funding. Forty-eight grantees in FY 2003 focused their interagency activities on efforts to obtain financing for AT devices and services (Exhibit 2). In addition, during FY 2003, grantees reported 42 legislative and policy changes resulting in the financing of AT devices and services, and improved access to services, devices and information (Exhibit 3).

**Exhibit 3. Capacity Building/Systems Change Activities Resulting From Legislative and Policy Changes<sup>a, b</sup>**

Capacity Building/Systems Change Activities	Total Number of Changes by Fiscal Year		
	FY 2001 (N = 174)	FY 2002 (N = 157)	FY 2003 (N = 152)
Improved coordination among state human service programs	103	88	84
Increased program capacity to provide technology-related assistance	81	74	77
Provided/disseminated information about the availability and potential of AT	83	91	81
Provided outreach to underrepresented populations and rural populations	56	47	55
Changed systems to ensure timely acquisition and delivery of AT devices and services	75	76	73
Obtained financing to pay for AT devices and services	69	50	42
Improved access to telecommunications and information technology	42	44	49
Trained personnel to assist individuals with disabilities to use AT	41	52	49

<sup>a</sup> Data source: AT State grant program annual progress reports for FY 2001–2003.

<sup>b</sup> Counts are duplicated as grantees can report more than one result for each type of change.

Overall, interagency efforts of grantees had impact across a wide range of areas. Grantees were asked to describe the outcomes of their interagency coordination activities.<sup>2</sup> A few examples of such outcomes in FY 2003 include the following:

- Coordinated with the state's VR agency to identify unemployed Georgians who might avoid institutionalization and obtain employment with the help of AT. Sixty individuals were evaluated and 30 were selected to receive services; 15 of those who received services obtained employment.
- Worked with the State Independent Living Council in a program that led to homeownership for 25 individuals with disabilities.
- Collaborated with a pharmacy association to provide medication management devices for seniors, allowing them to remain living at home.

<sup>2</sup> The AT annual progress report contains very limited opportunities for grantees to report on the outcomes of their activities. For a detailed discussion of grantee outcomes, see Jans, 2004.

- Worked with its state One-Stop system<sup>3</sup> to ensure the accessibility of programs at 21 locations.

***Demonstration Activities Carried Out Through the Funded Activities to —***

- (A) *Promote Access to Such Funding in Public Programs That Were in Existence on the Date of the Initiation of the Demonstration Activities; and***
- (B) *Establish Additional Options for Obtaining Such Funding***

In FY 2003, 50 of 56 (89 percent) grantees reported demonstration activities. Forty-seven of 51 (92 percent) grantees reported demonstration activities in FY 2001 and 52 of 56 (93 percent) grantees conducted demonstrations in FY 2002. In 2 out of the 3 years, demonstration sites served between 104,000 and 105,000 persons, of whom 48,000 to 50,000 were persons with disabilities (Exhibit 4).

**Exhibit 4. Individuals Served at Demonstration Sites<sup>a</sup>**

Individuals Served at Demonstration Sites	FY 2001	FY 2002	FY 2003
Total number of individuals served at demonstration sites	103,969	430,410 <sup>b</sup>	104,891
Number of individuals with disabilities served at demonstration sites	48,855	47,513	50,473

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003. In FY 2001, 47 grantees reported conducting demonstrations, in FY 2002, 52 grantees, and in FY 2003, 50 grantees.

<sup>b</sup> Arizona accounted for 349,092 of this total.

In FY 2002, 430,410 individuals visited demonstration sites, with Arizona accounting for 81 percent of all individuals served. For FYs 2001–2003, a total of 639,270 individuals attended demonstrations of AT, with 55 percent of the total persons from Arizona. Other than newsletters, demonstrations were the second largest means grantees used to provide information to all individuals and to individuals with disabilities across the 3-year period (Exhibits 4 and 5).

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<sup>3</sup> The One-Stop system was created by the Workforce Investment Act of 1998 (WIA) as a means to provide individuals seeking employment with as many employment-related services as possible at a single location. One-Stop locations serve a high number of individuals with disabilities. VR agencies and some of the AT grantees work with One-Stops in order to meet the needs of those individuals and ensure the accessibility of One-Stop locations. For example, in FY 2003, a total of 42 AT grantees reported some form of interagency coordination with One-Stop locations.

**Exhibit 5. Numbers of Consumers and Family Members Receiving Information From Selected Sources<sup>a, b</sup>**

<b>Method<sup>c</sup></b>	<b>Number of Consumers and Family Members</b>			
	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>Total</b>
Newsletters	90,555	97,916	161,265	349,736
Demonstrations	48,855	47,513	50,473	146,841
TA/training activities	31,895	30,694	37,965	100,554
Presentations	29,318	30,270	38,052	97,640
Public forums	6,357	7,587	1,982	15,926
<b>Total</b>	<b>206,980</b>	<b>213,980</b>	<b>289,737</b>	<b>710,697</b>

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

<sup>b</sup> Counts may be duplicated.

<sup>c</sup> Some grantees using particular methods to provide information were not able to report the total number of consumers and family members receiving information.

In all 3 years, subcontractors administered the majority of demonstration sites (54% of sites in FY 2001, 75% in FY 2002, and 68% in FY 2003). Data reported by the grantees indicate that there were 238 demonstration sites in FY 2001, 334 in FY 2002 and 242 in FY 2003. Part of the increase in FY 2002 was due to Iowa, which reported four demonstration sites in FY 2001 and in FY 2003, but 62 in FY 2002. The five grantees reporting in FY 2002 that had not reported using the Web-based system in FY 2001 accounted for another 26 demonstration sites. Twenty grantees reported a decrease between FY 2002 and FY 2003 in the number of demonstration settings in operation, 12 reported an increase and 24 reported no change.

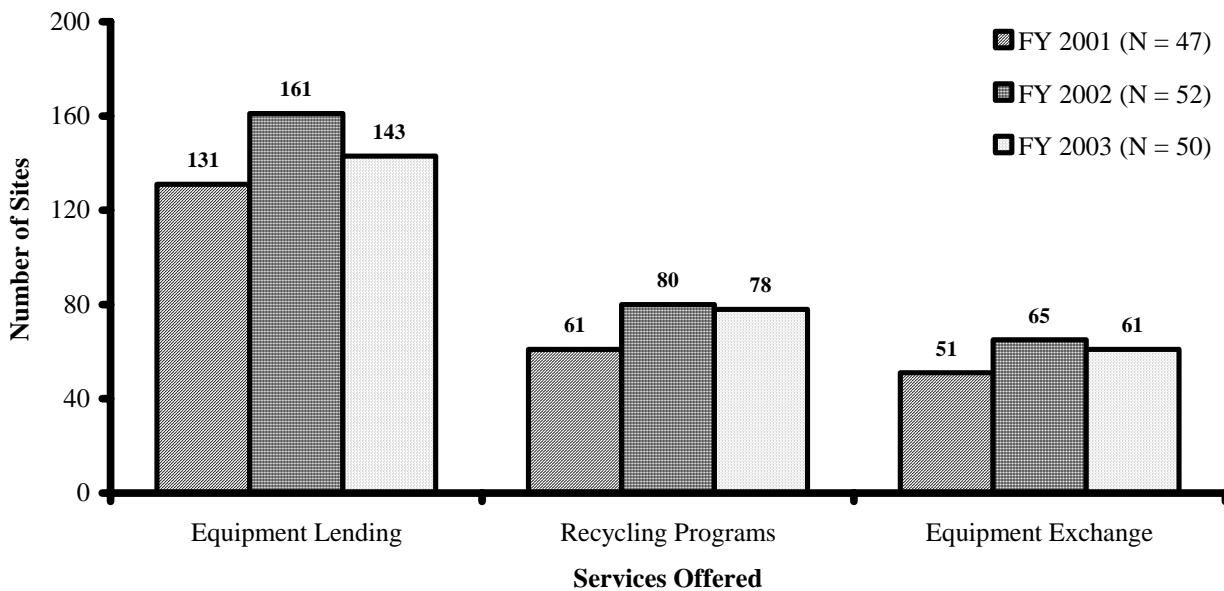
As Exhibit 6 indicates, the most common service offered at demonstration sites was AT equipment lending, available at 131 sites in FY 2001, 161 sites in FY 2002 and 143 sites in FY 2003. The number of grantees reporting equipment loan programs was 41 in FYs 2001 and 2003 and 46 in FY 2002.

The total number of demonstration sites with recycling programs rose from 61 in FY 2001 to 78 in FY 2003 (despite the fact that the number of grantees with recycling programs fell slightly from 28 in FYs 2001 and 2002 to 25 in FY 2003).

The number of demonstration sites with equipment exchange programs rose from 51 in FY 2001 to 65 in FY 2002, and then declined to 61 in FY 2003. The number of grantees reporting exchange programs was 21 in FY 2001, 23 in FY 2002, and 15 in FY 2003.

Grantees conducted demonstrations at a wide variety of locations, the most frequent of which are shown in Exhibit 7. Conferences, expos and fairs have consistently been the most common venues for AT demonstrations. Other demonstration sites regularly used by grantees and their subcontractors included AT regional centers and university and college campuses. Locations grantees used less frequently to conduct demonstrations include: churches/synagogues, community-based employer organizations, community centers, federal agencies, lending centers, libraries, rehabilitation centers, Web-based demonstrations and workforce development resource centers.

**Exhibit 6. Number of Demonstration Sites Offering Various Services<sup>a</sup>**



<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003. In FY 2001, 47 grantees conducted demonstrations, 52 in FY 2002 and 50 in FY 2003.

**Exhibit 7. Grantees Conducting Demonstrations by Location<sup>a</sup>**

Location	Number of Grantees		
	FY 2001 (N = 47)	FY 2002 (N = 52)	FY 2003 (N = 50)
Conferences/expos/fairs/exhibits	44	45	43
AT regional centers	40	45	38
Nonprofit organizations	37	34	36
Schools	37	40	35
State agencies	37	31	31
Senior citizen centers	32	37	34
Health clinics/hospitals	31	30	32
University/college/community college campuses <sup>b</sup>	—	36	39

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

<sup>b</sup> Response category was added to the reporting form in FY 2002 based on analysis of “other — specify” responses in FY 2001.

***Education and Training Activities Carried Out Through the Funded Activities to Educate And Train Targeted Individuals About Assistive Technology, Including Increasing Awareness of Funding Through Public Programs for Assistive Technology***

The AT Act of 1998 specifies that the Department of Education’s annual report on the AT grantee program shall contain information on activities carried out “to educate and train targeted individuals about assistive technology, including increasing awareness of funding through public programs for assistive technology.” As shown in the following text and exhibits, AT grantees provided training on AT to 361,574 individuals over the 3-year period (Exhibit 8). In each year, the majority of grantees provided training specifically related to funding sources and the acquisition of AT (Exhibit 9). In FY 2003, 48 of 56 (86 percent) grantees provided training specifically related to funding sources and the acquisition of AT. Forty-four of 51 (89 percent) grantees provided such training in FY 2001 and 51 of 56 (93 percent) grantees provided such training in FY 2002.

In FY 2003, 54 of 56 (96 percent) grantees conducted technical assistance and training activities. Fifty-four of 56 (96 percent) grantees conducted TA and training activities in FY 2001. In FY 2001, 49 of 51 (96 percent) grantees conducted TA and training activities and 55 of 56 (98 percent) grantees carried out these activities in FY 2002. Therefore, most grantees have

conducted technical assistance (TA) and training activities during the 3 years NIDRR has used a Web-based reporting form. Over the 3-year period, grantees conducted more than 43,000 TA and training activities, involving approximately 360,000 participants.

In each of the 3 years, more than two-thirds of grantees provided detailed information on individuals served through TA and training activities.<sup>4</sup> This data provides the basis for Exhibit 8. Professionals (including educators, counselors, case managers, health professionals and technology experts) consistently made up at least 40 percent of all participants in TA and training activities. Individuals with disabilities, together with their family members, accounted for 34 to 40 percent of participants. The large increase in “general public” training participants in FY 2003 is attributable to one grantee, which reported 7,430 general public training participants.

The most frequent topics of AT grantee training sessions included device-specific training, AT evaluation and assessment, and obtaining funding for AT (see Exhibit 9). In the two most recent reporting periods, all reporting grantees cited training sessions focused on specific AT devices or services. Device-specific training sessions most often addressed include:

- Aids for daily living.
- Computers and computer adaptations.
- Environmental modifications.
- Recreational devices.
- Augmentative and alternative communication (AAC) devices.

In FY 2003, 53 of 56 (95 percent) grantees reported conducting some form of follow-up with attendees of the training activities:

- Thirty-seven grantees collected consumer satisfaction data on their training activities.
- Thirty-five grantees followed up with a telephone call, e-mail or other personal contact with participants.
- Thirty-four grantees provided additional technical assistance.
- Thirty-four grantees sent additional printed materials to training participants.

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<sup>4</sup> Over all 3 years, there were 158 “Yes” responses to the question of whether a grantee conducted training activities. Of these, there were 115 instances when grantees were able to include data on the types of training participants.

- Twenty-eight grantees provided additional direct training.

**Exhibit 8. Technical Assistance/Training Participants, by Selected Category<sup>a, b</sup>**

Selected Types of Participants	TA/Training Participants					
	FY 2001		FY 2002		FY 2003	
	Number	Percent <sup>c</sup>	Number	Percent <sup>c</sup>	Number	Percent <sup>c</sup>
<b>Uncategorized participants</b>	<b>24,374</b>	—	<b>42,258</b>	—	<b>23,820</b>	—
<b>Categorized participants</b>	<b>80,166</b>	—	<b>87,040</b>	—	<b>103,916</b>	—
Professionals	34,446	43	38,376	44	41,350	40
Individuals with disabilities	20,834	26	16,150	21	27,365	26
Family members	11,061	14	11,011	13	10,798	10
Students (all levels) <sup>d</sup>	—	—	4,308	5	5,330	5
General public <sup>d</sup>	—	—	2,102	2	10,161	10
Policymakers/state agency personnel	1,790	2	1,680	2	2,467	2
Employers	1,556	2	1,497	2	713	1
Other	10,479	13	8,284	10	4,155	4
<b>Total<sup>e</sup></b>	<b>104,540</b>	<b>100</b>	<b>129,298</b>	<b>100</b>	<b>127,736</b>	<b>100</b>

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

<sup>b</sup> Forty-nine grantees reported on technical assistance and training in FY 2001, 55 in FY 2002 and 54 in FY 2003.

<sup>c</sup> The percentages of grantees in each category are based on the data reported by grantees able to provide detailed breakdowns of participant types.

<sup>d</sup> Response categories were added to the reporting form in FY 2002.

<sup>e</sup> Totals represent all persons receiving technical assistance/training, including grantees unable to provide details of training participant types. Percentages may not add up to 100% due to rounding.

**Exhibit 9. Topics Addressed by Technical Assistance/Training Sessions<sup>a</sup>**

Topic	Number of Grantees		
	FY 2001 (N = 49)	FY 2002 (N = 55)	FY 2003 (N = 54)
Modifications/device-specific training	47	55	54
AT evaluation/assessment/practice/AT devices	47	51	51
Funding/acquisition of AT devices or services	44	51	48
Advocacy/consumer rights issues/laws/informed consumer choice	44	49	47
Development and implementation of laws, regulations, policies, practices, procedures or organizational structures that promote access to AT devices and services	39	41	42
Web accessibility/IT <sup>b</sup>	—	45	41

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

<sup>b</sup> Response category was added to the reporting form in FY 2002.

Public awareness activities focus on developing and disseminating information on AT devices and services, and facilitating communication between AT providers and targeted individuals. All grantees conducted public awareness activities in FY 2003. All grantees also conducted public awareness activities in FY 2001 and FY 2002. While grantees employed an array of methods and approaches to increase public awareness, several methods were used more extensively and consistently than others over the 3-year period, (see Exhibit 10). Grantees most often used information fact sheets or flyers for the public to increase public awareness in FYs 2002 and 2003; in FY 2001, this method was one of the second most commonly used by grantees.

**Exhibit 10. Methods Frequently Used to Increase Public Awareness and Disseminate Information<sup>a</sup>**

<b>Method</b>	<b>Grantees Using Method</b>		
	<b>FY 2001 (N = 51)</b>	<b>FY 2002 (N = 56)</b>	<b>FY 2003 (N = 56)</b>
Informational fact sheets/fliers for public	48	55	55
Web site	48	54	54
Drop-ins to office and/or demonstration center	49	52	54
Exhibits/fairs in public areas	47	53	54
Articles/notifications in other agency publications	47	53	53
Telephone calls	47	53	52
Mailings	48	49	53
Presentations	47	50	49

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

<sup>b</sup> Counts are duplicated; grantees can report all methods used.

Other methods grantees use to increase awareness and disseminate information about AT devices and related services include: Internet discussion lists, public service announcements, establishing reference libraries for public use, radio/TV/newspapers, maintaining a database for the public with AT information, manuals/guides/booklets, producing videos, sponsoring an AT conference, responding to e-mail requests and maintaining listservs. Grantees use an array of public awareness methods to reach multiple audiences.

NIDRR supports a National Public Internet Site authorized under section 104(c)(1) of the AT Act of 1998. In FYs 2001, 2002 and 2003, the majority of grantees (over 90 percent) also reported having a Web site. Most grantee Web sites were linked to the National Public Internet Site, <http://assistivetech.net>. The characteristics of the grantee Web sites have remained fairly constant for the last two reporting periods (see Exhibit 11).<sup>5</sup> Other than one Web site under construction, all grantees reported that their Web sites were accessible to individuals with disabilities. The majority of grantees' Web sites have links to primary sources for information

<sup>5</sup> In FY 2002, the questions about electronic dissemination of information were revised slightly to be consistent with changes to the reporting forms for other NIDRR programs. Hence, these questions were not asked of grantees in FY 2001.

(for example, the Social Security Ticket to Work bulletin or regional resource centers) and downloadable products that often include grantee-produced information on various aspects of AT (e.g., alternative financing, AT for various populations, home modifications and Web access guidelines), searchable databases and information in a language other than English. Over a third of the Web sites provide an online order form for products.

#### **Exhibit 11. Web Site Characteristics<sup>a</sup>**

<b>Web Site Characteristics</b>	<b>Number of Grantees</b>	
	<b>FY 2002 (N = 54)</b>	<b>FY 2003 (N = 54)</b>
Web site accessible to individuals with disabilities	53	53
Web site assists in distribution of materials	50	50
Links to primary sources	48	48
Online order form	19	18
Downloadable products	38	41
Web site linked to assistivetech.net	43	47

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2002–2003.

NIDRR's annual progress reporting form asks grantees to provide information on the number of individuals (including consumers and family members) receiving information by specific source (Exhibit 12). These sources include selected public awareness activities, demonstrations, and technical assistance and training. In FY 2003, a total of 854,179 individuals received information about assistive technology from grantees through public awareness, demonstration and TA/training activities. A total of 2.6 million individuals received information during FYs 2001–2003 from activities in these three areas. Over 1.5 million individuals received information through public awareness activities (61 percent), with newsletters accounting for 830,817 of all recipients. The second most frequently used source of information was demonstrations, which accounted for 639,270 recipients (25 percent), followed by toll-free telephone calls (17 percent) and TA/training activities (14 percent). Ten percent of individuals received information through presentations and about 1 percent received information from public forums. The number of individuals served

through the most common methods of public awareness increased across all categories from FYs 2002–2003, with the exception of public forums, which declined by two-thirds.<sup>6</sup>

#### **Exhibit 12. Number of Individuals Receiving Information From Selected Sources<sup>a</sup>**

<b>Method<sup>b</sup></b>	<b>Number of Individuals<sup>c</sup></b>			
	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>Totals</b>
<b>Grantees reporting public awareness activities</b>	<b>(N = 51)</b>	<b>(N = 56)</b>	<b>(N = 56)</b>	
Newsletters	232,581	240,275	357,961	830,817
Toll-free telephone calls	123,260	150,338	153,853	427,451
Presentations	77,112	82,606	104,416	264,134
Public forums	12,010	15,853	5,322	33,185
Subtotal				1,555,587
<b>Grantees reporting demonstrations</b>	<b>(N = 47)</b>	<b>(N = 45)</b>	<b>(N = 50)</b>	
Demonstrations	103,969	430,410d	104,891	639,270
<b>Grantees reporting TA/training</b>	<b>(N = 49)</b>	<b>(N = 55)</b>	<b>(N = 54)</b>	
TA/training activities	104,540	129,298	127,736	361,574
<b>Total</b>	<b>653,472</b>	<b>1,048,780</b>	<b>854,179</b>	<b>2,556,431</b>

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

<sup>b</sup> The data in this table are collected from different sections of the annual report; in FY 2001 through FY 2003 all grantees using the reporting system reported on public awareness activities, while fewer grantees reported on TA and training. Within each type of public awareness activity, the number of grantees that were able to provide specific counts on the number and type of recipients by method varied by year.

<sup>c</sup> Totals include individuals with disabilities and their families.

<sup>d</sup> In FY 2002, Arizona reported 349,092 participants for demonstrations or 81 percent of the total.

<sup>6</sup> Without the data from the five grantees that chose not to use the Web-based reporting system in FY 2001, NIDRR cannot say with certainty that there was an increase in the number of individuals served from these public awareness methods from FY 2001 to FY2002.

***The Research Activities Carried Out Through the Funded Activities to Improve  
Understanding of the Costs and Benefits of Access to Assistive Technology for Individuals  
With Disabilities who Represent a Variety of Ages and Types of Disabilities***

No research studies on the availability of assistive technology devices and assistive technology services were conducted as part of the activities of these grantees. However, under Title II of the Rehabilitation Act, NIDRR has funded an array of AT research grants. A sampling of the entire portfolio of NIDRR funded AT research projects is highlighted in this report.

As part of the effort to collect research on access to and use of assistive technology, NIDRR awarded funding to the California Foundation for Independent Living Centers (CFILC). As part of their project, CFILC is working with the independent living community to develop cumulative research data on the use of and access to AT by people with disabilities. As a result of their work the grantee has published a report on its findings, reviewing the success and barriers of AT. A copy of this report is available at

[http://www.atnet.org/CR4AT/PositionPapers/Position\\_Papers.html](http://www.atnet.org/CR4AT/PositionPapers/Position_Papers.html).

Duke University was awarded a grant to fund the Consortium for Assistive Technology Outcomes Research. The consortium is comprised of assistive technology professionals from AT programs and organizations in the United States and Canada. As part of their grant activities, Duke University is focusing on improving measurement science for assistive technology and understanding the processes for the adoption and use or discontinuance of assistive technology. Among the research activities associated with this project, the grantee will review existing approaches and identify barriers to the use of assistive technology outcomes measurement and examine factors related to assistive technology abandonment. More information on grant activities and publications associated with this project are available at  
<http://www.atoutcomes.com/ATOCdefault.htm>.

Grant funding was also awarded to the University of Wisconsin at Milwaukee to conduct grant activities that will also lead to enhanced understanding of AT use and abandonment. The Assistive Technology Outcomes Measurement System Project (ATOMS Project) endeavors to conduct a comprehensive needs assessment, develop a prototype instrument and hold consensus building activities in an effort to address the critical need to identify components of a future AT outcomes measurement system. A number of publications on assistive technology have emanated from the ATOMS project. For a complete description of grant activities and publications, visit  
<http://www.uwm.edu/CHS/r2d2/atoms/>.

***The Program Outreach Activities to Rural and Inner-City Areas That Are Carried Out Through the Funded Activities and Funded Activities Targeted to Reach Underrepresented Populations and Rural Populations***

Grantees provided information on the support they extended to statewide and community-based organizations that provide AT devices and services or that assist persons with disabilities in using AT devices and services, “including a focus on organizations assisting individuals from underrepresented and rural populations” (Section 101(b)(2)(D)). This support may include outreach to consumer organizations and other groups to coordinate efforts to assist individuals with disabilities in obtaining AT devices and services. Underrepresented groups to be considered for outreach efforts are defined in the AT Act of 1998, and include: persons from rural areas; minorities; older individuals; poor persons; persons with low-incidence disabilities; and persons with limited English proficiency.

As seen in Exhibit 13, 79 percent (44 of 56) of grantees reported conducting outreach activities in FY 2003. In FY 2001, 90 percent (46 of 51) of grantees reported conducting some type of outreach that targeted underrepresented groups.<sup>7</sup> In FY 2002, there was an increase when all 56 grantees reported some form of outreach activity. The percentage of grantees conducting outreach activities decreased to 78 in FY 2003. The decline in outreach activities in FY 2003 cut across all underrepresented populations.

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<sup>7</sup> On the NIDRR annual progress reporting form, grantees can cite outreach activities they conduct in combination with other activities such as, interagency coordination activities, training or technical assistance activities, legislative or policy changes, or outreach conducted as a separate activity. Exhibit 12 provides an unduplicated count of outreach efforts across all types of activities.

**Exhibit 13. Underrepresented Groups Targeted by Any Outreach Activity<sup>a, b</sup>**

Population	Number of Grantees		
	FY 2001 (N = 46)	FY 2002 (N = 56)	FY 2003 (N = 44)
Persons from rural areas	41	42	35
Minorities	41	41	32
Older individuals	40	41	35
Poor persons	38	41	33
Persons with low-incidence disabilities	34	42	38
Persons with limited English proficiency	34	28	24

<sup>a</sup> Data source: AT State grant program annual progress reports for FYs 2001–2003.

<sup>b</sup> Outreach could be coordinated TA and training, with interagency coordination, or conducted with other activities or on its own.

In analyzing the data for outreach activities for the 3-year period, the following observations were made:

- Individuals with low-incidence disabilities were not a common target of outreach activities in FY 2001. By FY 2003, however, they were the group most likely to be targeted by outreach activities.
- Each year, persons from rural areas were among the two groups most likely to be targeted by outreach efforts.
- The largest relative decrease in outreach emphasis has been among minorities. Forty-one of 46 (89 percent) grantees reporting outreach activities focused on minorities in FY 2001, decreasing to 32 of 44 (73 percent) grantees in FY 2003.
- Persons with limited English proficiency were least likely to be the focus of grantee outreach efforts throughout the 3-year period; in FY 2003, only 24 grantees reported outreach to this underrepresented group.

In their annual reports, grantees are asked to describe their primary outreach strategy or focus. Examples of outreach activities reported by grantees in FY 2003 include the following:

- Operated mobile loan closets to conduct outreach in rural areas of the state.
- Worked with a coalition, including its Protection and Advocacy agency and a disability-related nonprofit organization, to identify individuals in nursing homes in need of AT.

- Conducted AT awareness activities at libraries throughout the state during Senior Citizens Month.
- Produced all materials in Spanish as well as English in order to conduct outreach in the Hispanic community.
- Displayed assistive technology at minority health conferences and AgrAbility conferences.
- Delivered AT presentations on a variety of devices and daily living aids to American Indian leadership meetings.
- Trained teachers across the state to meet the needs of individuals with low-incidence disabilities.

The AT Act of 1998 specifies that the annual report on the AT State grant program shall contain information on outreach activities aimed at providing information and services to underrepresented populations. As shown in Exhibit 13, in FY 2003, 79 percent of grantees conducted outreach aimed at providing information and services to underrepresented populations. A sizable majority of grantees (90 percent) reported conducting outreach in FY 2001 and all grantees conducted outreach in FY 2002. For all six underrepresented populations identified in the Act, at least 50 percent of grantees conducted outreach to improve AT access in all 3 years.

#### ***Consumer Involvement Activities Carried Out Through The Funded Activities***

The AT Act of 1998 states that the annual report on the AT grantee program shall contain information on “the consumer involvement activities carried out through funded activities” (P.L. 105-394, Title I, Section 103(c)(2)(G)).

Exhibit 8 shows that 27,365 individuals with disabilities participated in grantee-sponsored TA and training events in FY 2003 and over the last 3 years, 64,349 individuals with disabilities participated in grantee-sponsored TA and training events. The number of family members who engaged in these activities was 10,798 in FY 2003 and 32,870 over the last 3 years.

Grantees are also asked to report the numbers of consumers and family members who obtain information from various sources, if possible (see Exhibit 5). In FY 2003, 289,737 consumers and family members received information from the selected sources identified in Exhibit 5. The number of consumer and family members who received information increased from 206,980 in FY 2001 to 213,980 in FY 2002, and 289,737 in FY 2003.

Overall, newsletters reached the largest number of consumers and family members, accounting for almost half of the over 700,000 consumer and family member recipients during the 3-year period. Consumers and family members represented about 28 percent of all individuals who received information from public awareness activities, demonstrations, and TA/training (see Exhibit 7). Demonstrations were the second largest venue for providing information to consumers and family members, in FYs 2001–2003 reaching nearly 150,000 individuals. TA/training activities followed, providing resources to more than 100,000 individuals.

## FINDINGS

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## **SUMMARY**

During FY 2003, the state AT State grant program grantees reported activities designed to increase and promote coordination among state agencies, with such efforts among grantees increasing over the past three fiscal years. Grantees also focused their efforts on activities that led to an increase in the availability of funding for AT devices and services, including initiating changes in public policy.

AT State grantees also provided education and training activities to increase awareness and knowledge of assistive technology devices and services. Grantees have identified consumer benefits and outcomes resulting from grant activities, as well as those activities benefiting individuals with disabilities from rural and inner-city areas, and underrepresented populations. In conducting these activities and the other activities described in this report, the AT state grantees under Title I of the Act have implemented programs that are addressing the assistive technology needs of individuals with disabilities in the United States and its territories.

## **SUMMARY**

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